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(54) INFORMATION SELECTION METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To eliminate troubles such that there are no common operations in browsing homepages and viewing television broadcast programs and different operation must be performed in each in a personal computer by which browse of the homepages and viewing of the television broadcast programs can be selected.

SOLUTION: When an item selected from menu display is judged as a program currently being broadcast in a step S201, a tuner is started, a receiving channel is set as the program, prescribed software is properly started and the contents of the broadcast program are displayed (steps S202 to S204). When the selected item is a file recorded in a recording medium, the file (such as that in which the program is recorded) in the recording medium is accessed and displayed (steps S205 to S207). When the selected item is a homepage on the Internet, the homepage is accessed and the received contents of the homepage are displayed (steps S205, S208, S209).

CLAIMS

[Claim(s)]
[Claim 1] The 2nd item which shows the file recorded on the 1st item and record medium in which the homepage of the Internet is shown at least Either, A selection-menu indication of said the 1st thru/or 3rd item which the 3rd item which shows the program under current broadcast is registered beforehand, and is registered is given. The 1st step which judges whether it is the information selection approach which chooses the item of 1 of arbitration from the items by which it was indicated by the selection menu, and the item chosen from said items by which it was indicated by the selection menu is said 3rd item, When judged with said 3rd item having been chosen by said 1st step The 2nd step which receives with a broadcast receiving means and displays the program of the channel corresponding to said 3rd selected item, The information selection approach characterized by including the 3rd step which is received or reproduced and displays the information source corresponding to said 1st or 2nd selected item when judged with items other than said 3rd item having been chosen by said 1st step.
[Claim 2] Said 3rd item about the program under current broadcast is the information selection approach according to claim 1 that the title based on the title information acquired from the broadcast race card information acquired through the inside of a broadcast signal or a network is characterized by being indicated by the selection

menu.'

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the information selection approach which chooses the information source by the bookmark ("favorite") which starts the information selection approach, especially is used by the browser of the Internet.
[0002]
[Description of the Prior Art] Accessing a desired site simply and enabling it to peruse a homepage is widely performed by the user's registering into the bookmark (referred to as a "favorite" or "Favorites") the site accessed frequently, and choosing conventionally, the item showing the site which wants to open and see the menu in the browser software of the Internet used in a personal computer (a following personal computer and brief sketch).
[0003] Moreover, in the personal computer, audio-visual fusion progresses, the tuner for receiving television broadcasting is built in, and what can view and listen to a television broadcasting program, or can be accumulated in the hard disk drive (Following HDD and brief sketch) which builds in the received television broadcasting program is commercialized using the display function. Moreover, the possible compound device is also further proposed for viewing and listening of the Internet perusal and a television broadcasting program, and DVD (Digital Versatile Disc) software playback by one set of a device.
[0004]
[Problem(s) to be Solved by the Invention] In the above personal computers, the browser of the Internet mainly peruses a homepage and is performing viewing and listening of a television broadcasting program by starting software independently different from this. For this reason, for a user, in that he wants to acquire information, although homepage perusal is also the desire also with common viewing and listening of a television broadcasting program, it does not have similarity in that actuation, either and has the troublesomeness that different actuation in each must be performed.
[0005] moreover, the above-mentioned compound device -- setting -- the first menu -- drawing 10 -- like -- the Internet perusal and viewing and listening of a television broadcasting program -- or when it has come to be able to perform selection called playback of DVD software and either of this is chosen, there are MENYUHE about each actuation and a thing which is made to shift. In such a compound device

similarity about the first actuation since the Internet or television broadcasting is sufficient, in [of a certain thing], saying that he wants to see a weather report for example It looks for whether in <u>drawing 10</u> , viewing and listening of a television broadcasting program is chosen first, and there is any weather report. When there is no weather report, it must carry out by going back to the beginning of actuation about each, and the troublesomeness of actuation is not too canceled so that the Internet perusal may next be chosen and it may say that the site of the weather report on the Internet is accessed.

[0006] the bookmark (favorite) which this invention was made in view of the above point, and is used by the browser of the Internet -- the homepage of the Internet -- in addition, it aims at offering the information selection approaches also including a television broadcasting program and the image voice program recorded on the record medium which can choose the information source.

[0007]

[Means for Solving the Problem] The 2nd item which shows the file recorded on the 1st item and record medium in which the homepage of the Internet is shown at least this invention in order to attain the above-mentioned purpose Either, A selection-menu indication of the 1st thru/or the 3rd item which the 3rd item which shows the program under current broadcast is registered beforehand, and is registered is given. The 1st step which judges whether it is the information selection approach which chooses the item of 1 of arbitration from the items by which it was indicated by the selection menu, and the item chosen from the items by which it was indicated by the selection menu is the 3rd item, When judged with the 3rd item having been chosen by the 1st step The 2nd step which receives with a broadcast receiving means and displays the program of the channel corresponding to the 3rd selected item, When judged with items other than the 3rd item having been chosen by the 1st step, it is characterized by including the 3rd step which is received or reproduced and displays the information source corresponding to the 1st or 2nd selected item.

[0008] The 2nd item which shows the file recorded not only on the 1st item but on the record medium in which the homepage of the Internet is shown in this invention, and the 3rd item which shows the program under present broadcast are indicated by the selection menu. Since the information source corresponding to the item chosen from the inside as arbitration was displayed, When the 1st item is chosen, the homepage of the Internet can be displayed, when the 2nd item is chosen, the file information reproduced from the record medium can be displayed, and when the 3rd item is chosen, the contents of the program present on display can be displayed. Thereby, in addition to the homepage of the Internet, the file information recorded on the record medium and the program under present broadcast can be added, it can be chosen from this inside as arbitration, and the contents of the information source of selections can be displayed on the bookmark (favorite) of the browser of the conventional Internet.

[0009] Moreover, in order to attain the above-mentioned purpose, this invention is characterized by indicating the title based on the title information acquired from the broadcast race card information acquired through the inside of a broadcast signal, or a network as the 3rd item about the program under current broadcast by the selection menu. In this invention, using broadcast race card information, the title which shows the 3rd item about the program under present broadcast can be generated easily, and can be displayed.

[0010]

[Embodiment of the Invention] Next, the gestalt of 1 operation of this invention is explained with a drawing. Drawing 1 shows the block diagram of an example of a suitable information selecting arrangement to enforce the information selection approach of this invention. As this information selecting arrangement consists of a personal computer and it is shown in drawing 1 , centering on a central processing unit (CPU) 10 The data used by the program and its program for performing by the video-signal processing section 12 which processes the broadcast signal received with the tuner 11 which carries out channel selection reception of the television broadcasting of a request channel, and the tuner 11, and acquires a status signal, and CPU10, The information for realizing the function as a personal computer, The animation and voice of television broadcasting which received The hard disk drive (HDD) 13 and program to accumulate The actuation means 16 of the keyboard and mouse for inputting the information which the display means 15 for displaying the homepage of the memory 14 and the Internet which store data temporarily in case it performs, and the image of television broadcasting, and the user operated and acquired, and the Internet are accessed. The means of communications 17 which receives the homepage of the request on the Internet, and clock means which gives current time 18 grade are mutually connected through a bus 19, and an exchange of data is performed among them.

[0011] The display which constitutes not only when all the components shown in drawing 1 are prepared in the same case, but the display means 15, and the body of a personal computer containing components other than display means 15 are another cases, and the personal computer which constitutes the information selecting arrangement shown in this drawing 1 may be divided into the equipment with which some of those components were separated that they are connected by the cable, like. Moreover, it is possible not only HDD13 but to use the storage of semiconductor memory and others.

[0012] Next, the data of the item of the menu of the gestalt of 1 operation of this invention approach by the information selecting arrangement shown in drawing 1 and the processing at the time of selection are explained. Drawing 2 (a) shows an example of the upper right part of the window displayed on the screen of the display means 15 when starting the browser of the general Internet. Here, the list of bookmarks which the user registered is displayed by what (it is said the following that a "favorite" is

opened for this) the "favorite" carbon button 22 on the "favorite" of a menu bar 21 or a tool bar is clicked and specified for. This list is divided often further into the sub menu, and each contents of registration are contained in them.

[0013] Although these contents of registration are only the contents of registration about the homepage of the Internet conventionally, with the gestalt of this operation, the contents of registration about a television broadcasting program etc. are also added further. This example is shown in drawing 3 . When a "favorite" is opened from the menu of a browser, in the example of drawing 3 "Now On Air TV", If the list which expresses major items, such as the "weather", a "gourmet", a "sport", and a "travel", in addition to the item which is not in the former "TV program recorded on videotape" is displayed first (this drawing (a)) and one in them is chosen and opened further The list of concrete items in them is displayed (this drawing (b) – (e)).

[0014] In Windows (trademark) which is OS (operation system) generally widely used in the personal computer, the information on such a list is accumulated in the "Favorites" folder 23 in the "WINDOWS (trademark)" folder memorized by HDD13, as shown in drawing 2 (b). Such a list has an interesting user, and when it can register suitably and preparing a subfolder for the inside of the "Favorites" folder 23 further so that it may be constituted as a sub menu also performs predetermined actuation in a browser about the homepage which it continues to access, it can be made to do it easily.

[0015] Now, the example of the data of each of those items is shown in drawing 4 that the "favorite" contents are configurations like drawing 3 . These are contained into the aforementioned "Favorites" folder 23, and show only within the contents of data required to explain the gestalt of this operation by drawing 4 . In addition to the data of the conventional Favorites, the item of the "source" is added, further, when the program under broadcast (real-time viewing-and-listening program) is shown, the information on a broadcasting station (channel) is put in, or the attribute information on a program like a genre (genre) is made to be here put in instead of the address of the Internet. Moreover, about the program [finishing / record to HDD13], the storing location of the file of the program on HDD13 is shown.

[0016] Below, each item of drawing 3 and drawing 4 is explained at an example. As shown in drawing 4 , in this example, the "source" is expressed with the figure of 0 or 1 (it can express by 1 bit), and is made into the semantics described in the bottom of drawing 4 , respectively. That is, when the source is "0", the homepage of the Internet or the files (program etc.) which were accumulated in the record medium (here HDD13) as a file are expressed. These sources are the sources which can be registered by the conventional "favorite", and indicate by playback by carrying out selection assignment of the item belonging to this by the software which was suitable for access in the corresponding address of the Internet, and was suitable for the display of the file content in the file concerned.

[0017] On the other hand, when the source is "1", a real-time viewing-and-listening

program is expressed. This source is the source added to a "favorite" with the gestalt of this operation, is choosing this source, and when it is [current] under broadcast, it can perform viewing and listening of that program. In this case, an animation viewer may be started in a browser and the software for television program viewing and listening may be automatically started by this selection actuation apart from a browser.

[0018] Here, the major item of "Now OnAir TV" including the real-time viewing-and-listening program whose source is "1" puts in the list of programs which receive the newest race card and are then broadcast by means of communications 17 or the tuner 11 into the item, when a browser is started. Here, as shown in <u>drawing 4</u> , as an expiration date, it is put into the end time of the program, and after program termination makes the item selection impossible while making a user understand by making the alphabetic character of a display of a menu thin etc.

[0019] Next, the actuation when storing the information on "Now On Air TV" as Favorite information is explained with the flow chart of <u>drawing 5</u> . First, the EPG (electro nick program guide) information which set the tuner 11 to ON (step S101), next was included in the television broadcasting signal comes to hand (step S102). In the case of analog broadcasting, since it enters at the vertical-retrace-line period of a television broadcasting signal and goes into the packet with predetermined ID in digital broadcast, EPG information can extract and obtain them.

[0020] Subsequently, the information on the program under current broadcast is extracted from the EPG information which came to hand, and the current time information acquired from the clock means 18 (step S103). And it stores in the Favorites folder 23 as an item which showed the information on the program under extracted present broadcast as "Now On Air TV" to "favorite" <u>drawing 4</u> (step S104).

[0021] The program of the television broadcasting included in the item of "Now On Air TV" here supposing it comes out so much and does not perform renewal of subsequent although what is necessary is to make it read only when a browser is started Since many of programs which were under broadcast at the time of browser starting are completed when it is going to choose a program from "Now On Air TV" after carrying out long duration neglect, with a browser opened, many of programs will become selection impossible.

[0022] Then, in order to solve the above-mentioned problem, the example of the browser screen which enabled it to read the newest program information suitably is <u>drawing 6</u> . The difference between this <u>drawing 6</u> and conventional <u>drawing 2</u> (a) is that the carbon button (icon) 25 "renewal of a race card" is added to the tool bar in <u>drawing 6</u> . By clicking on this icon 25, the program information newest in the actuation mentioned later comes to hand. Furthermore, a browser is started and it is periodical spacing of every 10 minutes the back, or whenever the expiration date of the program of either of the items comes, you may make it the newest program information come to hand automatically.

[0023] Moreover, although it is the program of television broadcasting, when broadcast, it is recorded on HDD13, period preservation of predetermined is carried out, and there is also a television broadcasting program which is deleted after that or is updated. For example, the program "today's weather" of a weather report is recorded on videotape every day, and it is saved until the date changes. The "source" of such an item is set to "0" as shown in drawing 4 , and the permanent file of this program on HDD13 is specified as the address column. In the example of drawing 4 , the MPEG animation file "today.mpg" which "today's weather" has in the subfolder "tenki" in the folder "TV" is specified. In addition, whenever it is a weather report, two or more weather report programs are specified beforehand, the file of this weather report program is updated in order of the broadcast time amount, and the newest weather report may be made to see.

[0024] Next, actuation of the gestalt of this operation when choosing the list element of a request of a user from a "favorite" menu is explained with the flow chart of drawing 7 . First, CPU10 investigates [the item which operated the actuation means 16 which the user showed to drawing 1 , and was chosen from the lists which opened a "favorite" from the menu of a browser and were displayed on the screen of the display means 15] whether it is a program under present broadcast (step S201). This should just investigate whether the value of the "source" in drawing 4 is "1" about the selected item (list element). However, the "source" will call the thing of "1" the program under current broadcast by the item chosen here since it was carried out by displaying thinly in a display list and being unable to choose as it mentioned above, when having passed over the expiration date even if the "source" is "1", namely, having already finished the program.

[0025] When it judges that the selected item is a program under present broadcast at step S201, a tuner 11 is started (step S202), and CPU10 shown in drawing 1 sets a receiving channel as the program concerned (step S203), starts predetermined software suitably, and displays the contents of a program on the screen of the display means 15 (step S204).

[0026] On the other hand, when it judges that the selected item is not a program under present broadcast at step S201, it investigates whether CPU10 is the file recorded on the record medium (drawing 1 HDD13) (step S205). the case where it is judged with this not being a program under present broadcast since the value of the "source" is "0" -- the homepage of the Internet -- or it is because display procedures differ by whether it is the file currently recorded on the record medium. Whether the information on the address/broadcasting station of the selected item is the address of the Internet can perform this judgment.

[0027] When judged with it being the file recorded on the record medium at step S205, CPU10 accesses the files (what the program was recorded on) concerned in a record medium (HDD13) (step S206), and displays the contents of a program etc. on the screen of the display means 15 (step S207). On the other hand, when judged with it

not being the program recorded on the record medium in step S205, the contents of a homepage which it became the same actuation as the time of accessing the homepage of the conventional Internet, and CPU10 started means of communications 17, accessed the homepage of the address of the Internet concerned (step S208), and were received are displayed on the screen of the display means 15 (step S209).

[0028] In addition, even if the information on the address/broadcasting station of the selected item is the address of the Internet, it is as being carried out from the former that the information which does not access the address concerned by means of communications in fact when the homepage perused once is accessed again, but is saved as a cache on HDD13 may be read.

[0029] In the above, although the actuation at the time of choosing, viewing and listening to the information registered into the menu was explained next, the actuation when registering a homepage and a television broadcasting program into a "favorite" is explained. In addition, although the list of programs under current broadcast is displayed about "Now On Air TV", the approach of the list creation is as having explained above.

[0030] If a user performs register operation to a "favorite" in a browser now, the actuation for carrying out assignment registration of a homepage or a program current on display at a "favorite" will be started. Actuation after it by the approach of this invention is explained with the flow chart of drawing 8 . CPU10 shown in drawing 1 investigates first whether the contents which it is going to register into a "favorite" now are television broadcasting programs (step S301). This is easily understood from what the contents currently displayed now are.

[0031] When the contents which it is going to register into a "favorite" are television broadcasting programs, a window including the message and selection input which ask whether it registers serially whether it registers with a user as real-time viewing and listening as an updating program is displayed on the screen of the display means 15, and it judges whether it is real-time viewing and listening according to the response from a user (step S302). Here, in fact, a user is also good to enable it to perform "cancellation", when cancellation actuation is performed, it is required to end this process etc., but since it is easy, by the following explanation, it omits in this case and suppose serially that a user chooses either of the updating programs in real-time viewing and listening.

[0032] When judged with it being real-time viewing and listening at step S302, CPU10 sets the "source" as "1" (step S303). And a detail setup about real-time viewing and listening is performed (step S304). Although the setting item in this case can consider many deformation, using the information from EPG, the information on the start time and end time of that program is acquired, and such information is stored in the location on which it decided beforehand as registration information in the case of the source "1", for example. About end time, you may both [information / appearance / which was stated in the example of previous drawing 4 / on the expiration date in a

homepage] use. By registering such information, at the time of the selection actuation from a "favorite", only when current time is after start time before end time, the assignment selection of this program can be carried out, and actuation of carrying out by displaying thinly and being unable to choose on a menu can be carried out to the case at other times.

[0033] Moreover, what is necessary is for the information on the title of a program to come to hand from the additional information of EPG or the program itself, and to omit a part, remaining as it is or in being too long, and just to let this program title be the title of an item as a title showing the item at this time. Furthermore, a user inputs a title manually and may enable it to set up a sake [the time when the title information on a program cannot come to hand, and when a user wants to attach a title uniquely].

[0034] By the way, in registration of such a real-time program, it cannot specify about one certain program, but the program of the same attribute as the program can also be specified collectively. The example of an approach is explained below. In "a detail setup in real-time viewing and listening" of step S304, a menu as shown in drawing 9 is first displayed on a user. When only registering the program concerned as mentioned above, selection assignment of menu on display "registering this program into "favorite"" is carried out (what is necessary is just to specify this by clicking the round mark in front of this token (radio button)). [of drawing 9]

[0035] Moreover, when registering the attribute of this program, selection assignment of menu on display "registering the attribute of this program into "favorite"" is carried out. [of drawing 9] And it chooses whether the attribute of throats, such as a genre and a performer, is registered. By the ability of the attribute in which the program concerned is included choosing now from a menu in that case, if it is a genre, a user will do selection assignment out of the thing which is a general drama, and a genre with still finer suspense in it, love thing, etc.

[0036] As this showed drawing 4 , supposing the item of a "live sport" is in the item of a "sport" as by carrying out like this showed to drawing 3 (a) and (d), and the program of a genre called a sport is registered If a user does selection assignment of this item, the program of a sport will be chosen and displayed out of the program currently broadcast at that time using the information on EPG. Although two or more sports programs may be broadcast in the same time zone, the list of the sports programs which may display what has the highest priority based on the priority set up beforehand in that case, and are broadcast before the display at the time is displayed, and a user may be made to choose from the inside generally.

[0037] For returning to drawing 8 again and explaining, when it was not real-time viewing and listening in step S302, i.e., judged with it being an updating program serially, CPU10 sets up the "source" "0" (step S310). And a file in case the program concerned is saved on a record medium is specified and registered (step S311). Whenever that this can be performed reserves the program from EPG information

each time and the new contents of broadcast are broadcast, the contents of a program recorded in the past are cases as it has set up so that the program concerned may be recorded on the recording device of HDD13 grade by the approach of eliminating.

[0038] In addition, when this setup is not performed about the program concerned, you may enable it to perform setting actuation on that spot, when a user chooses updating serially in step S302. Since the hard disk recorder for television program record of current home use is produced commercially and the function of "every week reservation" is already realized in them, the same technique as it should just be used for the approach of this setup. Furthermore, if the inside of the day is saved in a weather report and a day changes, it will eliminate, for example, and some are registered among the weather reports currently broadcast at various broadcasting stations, the newest thing of them can be saved, and a older thing can also register required data so that more complicated actuation can be performed to the appearance of eliminating as soon as a new thing is broadcast. Also in this case, an item title is set up by the user input from EPG or additional information as well as the case where the "source" is "1."

[0039] moreover, when judged with the contents which it is going to register into a "favorite" now not being television broadcasting programs in step S301 From the former about the homepage of the Internet, since it is a certain "favorite" registration CPU10 sets the "source" as "0" (step S310), performs the usual procedure which registers a "favorite" by the conventional browser, and registers the address of the homepage of the Internet into said Favorites folder on HDD13 (step S311).

[0040] In addition, this invention is not limited to the gestalt of the above operation, and you may make it choose one of the items which show one of the item which shows the homepage of the Internet, and the items which show the file recorded on the record medium, and the program under present broadcast.

[0041]
[Effect of the Invention] As explained above, according to this invention, to the bookmark (favorite) of the browser of the conventional Internet To the homepage of the Internet, in addition, since the file information recorded on the record medium and the program under present broadcast are added, it is chosen from this inside as arbitration and the contents of the information source of selections were displayed, the time of a user wanting to acquire information -- the source -- the program and the recorded contents under present broadcast -- or it cannot be concerned with the homepage of the Internet, but the contents can be displayed by the unified actuation, and the actuation procedure of information acquisition can greatly be simplified.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram of an example of a suitable information selecting arrangement to enforce this invention approach.
[Drawing 2] It is drawing showing the example of an image of the window when starting the browser of the general Internet, and an example of the storing location of a folder where "favorite" information is stored.
[Drawing 3] It is the configuration explanatory view of an example of the information chosen by this invention approach.
[Drawing 4] It is drawing showing an example of the contents of registration of the information chosen by this invention approach.
[Drawing 5] It is a flow chart for explanation of operation when storing the information on drawing 3 and "Now On Air TV" of drawing 4 as Favorite information.
[Drawing 6] It is drawing showing an example of a PURAUSA screen which enabled it to read the newest program information suitably according to the gestalt of 1 operation of this invention.
[Drawing 7] It is a flow chart for explanation of operation when the item of a list element is chosen by the gestalt of 1 operation of this invention.
[Drawing 8] It is a flow chart for explanation of operation when carrying out assignment registration of a homepage or the program at a "favorite."
[Drawing 9] It is drawing showing an example of a menu display of a detail setup in real-time viewing and listening.
[Drawing 10] It is drawing showing an example of the selection-menu display in a compound device.
[Description of Notations]
10 Central Processing Unit (CPU)
11 Tuner
12 Video-Signal Processing Section
13 Hard Disk Drive (HDD)
14 Memory
15 Display Means
16 Actuation Means
17 Means of Communications
18 Clock Means